We claim:

1. A wavelength-converting casting composition, for converting a wavelength of ultraviolet, blue or green light emitted by an electroluminescent component, comprising:

a transparent casting resin;

an inorganic luminous substance pigment powder dispersed in said transparent resin, said pigment powder comprising luminous substance pigments from Ce-doped phosphors; and

said luminous substance pigments having grain sizes ≤ 20 μm and a mean grain diameter $d_{50} \leq 5$ μm.

2. The casting composition according to claim 1, wherein said luminous substance pigments are substantially spherical particles.

3. The casting composition according to claim 1, wherein said luminous substance pigments are flakelike particles.

4. The casting composition according to claim 1, wherein the mean grain diameter d_{50} of said luminous substance pigments is between one and two micrometers.

5. The casting composition according to claim 1, which comprises the following components:

a) epoxy casting resin ≥ 60 % by weight;

b) luminous substance pigments > 0 and ≤ 25 % by weight;

c) thixotropic agent > 0 and ≤ 10 % by weight;

d) mineral diffusor > 0 and ≤ 10 % by weight;

e) processing adjuvant > 0 and ≤ 3 % by weight;

f) hydrophobic agent > 0 and ≤ 3 % by weight; and

g) adhesion promoters > 0 and ≤ 2 % by weight.

6. The casting composition according to claim 1, wherein said Ce-doped phosphors are garnets.

7. The casting composition according to claim 1, wherein said Ce-doped phosphors are YAG:Ce based particles.

8. The casting composition according to claim 1, which comprises a content of iron ≤ 20 ppm.

9. The casting composition according to claim 1, wherein said luminous substance pigments are formed with a silicon coating.

10. A light-emitting semiconductor component, comprising:

a semiconductor body formed of a semiconductor layer sequence and being capable, during an operation of the semiconductor component, of emitting electromagnetic radiation in at least one of an ultraviolet, blue, and green spectral range;

a wavelength-converting casting composition disposed in a vicinity of said semiconductor body, said casting composition being formed of a transparent casting resin and an inorganic luminous substance pigment powder dispersed in said transparent resin, said pigment powder comprising luminous substance pigments from Ce-doped phosphors and having grain sizes $\leq$ 20 μm and a mean grain diameter $d_{50} \leq 5$ μm;

said luminous substance pigments converting a portion of the radiation originating from the at least one of the ultraviolet, blue and green spectral range into radiation of a higher wavelength, such that the semiconductor component emits mixed radiation including the higher-wavelength radiation and radiation from the at least one of the ultraviolet, blue and green spectral range.

11. The light-emitting semiconductor component according to claim 10, wherein said casting composition encloses at least a part of said semiconductor body.

12. The light-emitting semiconductor component according to claim 10, wherein said semiconductor body is adapted to emit radiation in a blue spectral range having a maximum luminescence intensity at λ = 430 nm or at λ = 450 nm.

13. The light-emitting semiconductor component according to claim 10, which further comprises an opaque base housing having a recess formed therein, said semiconductor body being disposed in said recess and said recess being at least partially filled with said casting composition.

14. The light-emitting semiconductor component according to claim 10, wherein said casting composition is provided with various kinds of luminous substance pigments in respect to a host lattice distribution and a type and extent of doping.

15. The light-emitting semiconductor component according to claim 10, wherein said semiconductor body is a blue light emitting semiconductor body, and said Ce-doped phosphor comprises types of garnet adapted to shift some of the blue light emitted by said semiconductor body into a yellow spectral range, whereby the semiconductor component emits white light.

16. The light-emitting semiconductor component according to claim 10, wherein said semiconductor body is a blue light emitting semiconductor body, and said Ce-doped phosphor shifts some of the blue light emitted by said semiconductor body into a green and red spectral range, whereby the semiconductor component emits white light.